

## 28. NEW ADULT MALE ATTRACTANTS OF DANAID BUTTERFLIES

Earlier Amladi (1975) and Chaturvedi and Satheesan (1979) had reported adult Danaid Butterflies visiting *Heliotropium indicum* and *Crotalaria retusa* for Pyrrolizidine alkaloids and Monocretolene respectively. According to Ackery and Vane—Wright (1984), while working on Butterflies of Borivli National Park, I came across two new adult male attractant belonging to family Boraginaceae, i.e. *Trichodesma indicum* R. Br. Prodr., and *Paracaryum coelestinum*. The *Trichodesma* is annual herb much branched, hispid, 45-50 cm tall and bears paleviolet blue flowers. Though it emerges during mid of June and grows till December the butterflies, i.e. *Euploea core*, and *Euploea klugii* visit this plant in late august till October. On 23rd August I saw *Euploea core* hovering around the *Trichodesma* plant and alighting near the top of the plant rather than on the flowers. A closer look revealed that the butterfly uncoils its proboscis and rubs it on the hispid stem. When disturbed it flew around and returned to the same branch. Till September end the main visitors of *Trichodesma* plant were *Euploea*'s. Later the *Danaus genutia*, *Danaus chrysippus*, *Tirumala limniace* were also seen visiting these plants and rubbing their proboscis on the hairy stems. In all cases butterflies invariably settled near the apical region of the plant.

Individuals of two or three species were also seen on the same plant at a time. The time spent by the butterflies on a plant varies from a few seconds to 8 minutes.

*Trichodesma* is a genus of about 35 species distributed mainly in tropics and sub-tropics of the old world.

According to Miller and Morris (1988) some *Trichodesma* species are like the heliotropes known to contain pyrrolizidine alkaloids. Apparently this may be the reason why males of the Danaid butterflies visit this plant to obtain important precursor for the male pheromones. Haribal (1992) has reported the Blue Tiger *Tirumala limniace* and Common Indian Crow *Euploea core* visiting dried plants of *Paracaryum coelestinum*. Subsequently I had also observed the *Euploea core* and *Euploea klugii* Moore visiting this plant. *Paracaryum* is erect branched herb around 1 to 1.5 m high, the stem and branches are red pubescent when young and become glabrous later.

The butterflies settle on the dried plant and rub their proboscis when disturbed they fly in an area of around 4 m and return to same spot.

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29. OCCURRENCE OF PALAEARCTIC CLADOCERA *DIAPHANOSOMA BRACHYURUM* (LIEVEN) IN WEST BENGAL  
(With three text-figures)

During a survey of the wetlands of Hughly District of West Bengal, we came across a palaeartic species *Diaphanosoma brachyurum* (Lieven), of the family Sididae. Three species of the genus *Diaphanosoma*, viz. *D. senegalensis*, *D. excisum* and *D. sarsi* (Michael and Sharma 1988) have been reported from India, Brehm (1936) reported the present species from Kashmir. Subsequent record of this species is from Bangladesh (Khan *et al.* 1988). The present study reports the

occurrence of this species in a pond at Hughly District, West Bengal (22° 53' N, 87° 56' E), with a short description.

*Diaphanosoma brachyurum* (Lieven) (Figs. 1-3)

FEMALE: Body size 8.8 mm. Head large, without rostrum, fornix or ocellus. Carapace almost oblong; postero-dorsal corner with a distinct angle, dorsal